

10/519,979

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NEWS 6 APR 26 USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 7 APR 28 CAS patent authority coverage expanded
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 9 APR 28 Limits doubled for structure searching in CAS REGISTRY
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NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 17 JUN 26 NUTRACEUT and PHARMAML no longer updated
NEWS 18 JUN 29 IMSCOPROFILE now reloaded monthly
NEWS 19 JUN 29 EPFULL adds SLART to AB, MCLM, and TI fields
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McIntosh

10/519,979

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=>

Uploading C:\Program Files\Stnexp\Queries\10519979d.str

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=>

Uploading C:\Program Files\Stnexp\Queries\10519979c.str

L2 STRUCTURE UPLOADED

=> d 12

L2 HAS NO ANSWERS

L2 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 12:15:18 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 111 TO ITERATE

100.0% PROCESSED 111 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1588 TO 2852

PROJECTED ANSWERS: 0 TO 0

L3 0 SEA SSS SAM L1

=> s 11 full

FULL SEARCH INITIATED 12:15:22 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2534 TO ITERATE

100.0% PROCESSED 2534 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.01

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10/519,979

L4 4 SEA SSS FUL L1

=> s 12

SAMPLE SEARCH INITIATED 12:15:26 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 111 TO ITERATE

100.0% PROCESSED 111 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1588 TO 2852
PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L2

=> s 12 full

FULL SEARCH INITIATED 12:15:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2534 TO ITERATE

100.0% PROCESSED 2534 ITERATIONS 5 ANSWERS
SEARCH TIME: 00.00.01

L6 5 SEA SSS FUL L2

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	371.76	371.98

FILE 'CAPLUS' ENTERED AT 12:15:36 ON 29 JUN 2009
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FILE COVERS 1907 - 29 Jun 2009 VOL 151 ISS 1
FILE LAST UPDATED: 29 Jun 2009 (20090628/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 14 or 16

4 L4

9 L6

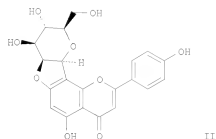
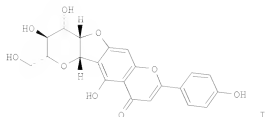
L7 10 L4 OR L6

=> d bib abs hitstr 1-10 17

L7 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN
AN 2009:506801 CAPLUS
DN 150:563497
TI Concise Synthesis of Chafuroside A and B

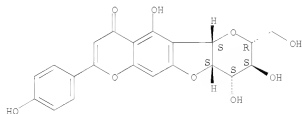
McIntosh

AU Furuta, Takumi; Nakayama, Miho; Suzuki, Hirotaka; Tajimi, Hiroko; Inai, Makoto; Nukaya, Haruo; Wakimoto, Toshiyuki; Kan, Toshiyuki
 CS School of Pharmaceutical Sciences, University of Shizuoka, 52-1 Yada, Suruga-ku, Shizuoka, 422-8526, Japan
 SO Organic Letters (2009), 11(11), 2233-2236
 CODEN: ORLEF7; ISSN: 1523-7060
 PE American Chemical Society
 DT Journal
 LA English
 GI



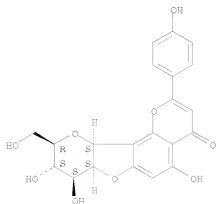
AB The regioselective synthesis of chafurosides A (I) and B (II) from a same Me ketone was accomplished using a novel protecting group strategy. Both flavone rings were constructed from a β -diketone intermediate, which was readily obtained by condensation of an acyl donor and the Me ketone. Construction of the dihydrofuran ring was achieved via an intramolecular Mitsunobu reaction.
 IT 720684-57-1P 866737-00-0P
 RI: SPN (Synthetic preparation); PREP (Preparation)
 (asym. synthesis of chafurosides A and B)
 RN 720684-57-1 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 866737-00-0 CAPLUS
 CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one, 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-hydroxyphenyl)-, (7aS,8S,9S,10R,11aS)- (CA INDEX NAME)

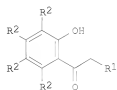
Absolute stereochemistry. Rotation (-).



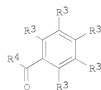
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:1216881 CAPLUS
DN 149:402106
TI Novel preparation of chafuroside based on efficient construction of
Flavones
IN Suga, Toshiyuki; Furuta, Takumi
PA University of Shizuoka, Japan
SO Jpn. Kokai Tokkyo Koho, 13pp.
CODEN: JKKXAF
DT Patent
LA Japanese
FAN.CNT 1

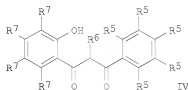
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008239513	A	20081009	JP 2007-79311	20070326
JP 2007-79311		20070326		
MARPAT 149:402106				



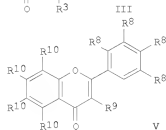
II



III



IV



V

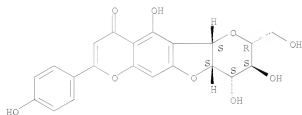
AB Chafuroside (I), already known as anti-inflammatory agent isolated from oolong tea, is prepared by treatment of compds. II [R1 = (protected) OH, ether residue, ester residue, halo; R2 = H, alkyl, acyl, (protected) OH, halo, glucose or other sugar residue] with compds. III [R3 = H, alkyl, acyl, (protected) OH, halo; R4 = benzotriazolyl, imidazolyl, halo, ester

residue] in the presence of bases in aprotic solvents, treatment of the resulting compds. IV [R5 = H, alkyl, acyl, (protected) OH, halo; R6 = (protected) OH, ether residue, ester residue, halo; R7 = H, alkyl, acyl, (protected) OH, halo, glucose or other sugar residue] in the presence of acids in protic or aprotic solvents, then treatment of the obtained compds. V [R8 = H, alkyl, acyl, (protected) OH, halo; R9 = (protected) OH, ether residue, ester residue, halo; R10 = H, alkyl, acyl, (protected) OH, halo, glucose or other sugar residue] with azodicarboxamides or azodicarboxylate esters, and trialkylphosphines or triarylphosphines, or in the presence of phosphoranes in aprotic solvents. Thus, 1-(2,4-bis(benzyloxy)-6-(tert-butylidiphenylsilyloxy)-3-((2S,3R,5R)-3,4,5-tris(benzyloxy)-6-benzoyloxymethyltetrahydro-2H-pyran-2-yl)phenyl)ethanone was reacted with 1H-benzod[1,2,3]triazol-1-yl(4-benzyloxyphenyl)methanone at -78° for 1.5 h in the presence of KHMDS/MePh in THF to give the corresponding β -diketone with 48% yield, which was deprotected with TBAF in THF, cyclized in the presence of p-TsOH, debenzylated, and treated with PPh3/THF and DEAD to afford I.

IT 720684-57-1P, Chafuroside
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (Preparation of chafuroside via β -diketones)

RN 720684-57-1 CAPLUS
 CN 2H,10H-Pyran[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L7 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN
 AN 2006:1332639 CAPLUS
 DN 146:42084
 TI Antitumors isolated from oolong tea leaf
 IN Wakabayashi, Keiji; Nukatan, Haruo; Muto, Tomohiro
 PA National Cancer Center, Japan
 SO Jpn. Kokai Tokkyo Koho, 18pp.
 CODEN: JXXXXF
 DT Patent
 LA Japanese
 FAN.CNT 1

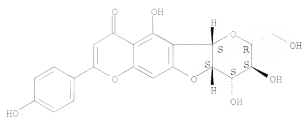
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006342103	A	20061221	JP 2005-169262	20050609
PRAI	JP 2005-169262		20050609		

AB The antitumor OTAC (Oolong tea active compound), flavone derivs., are extracted from Oolong tea leaf. The antitumor OTAC are able to inhibit cancer in rat colonic aberrant crypt foci (ACF model) and colonic polyp-formation Apc gene-deficient mouse model. Extraction of the antitumor OTAC from the oolong tea leaf with hot water and inhibition of cancer in the two animal models were shown.

IT 720684-57-1P 866737-00-OP
 RL: PFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

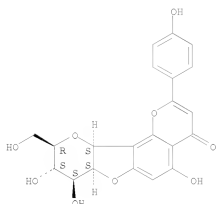
(OTAC antitumors isolated from oolong tea leaf)
 RN 720684-57-1 CAPLUS
 CN 2H,10H-Pyran[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 866737-00-0 CAPLUS
 CN 4H,8H-Pyran-2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-
 hydroxyphenyl)-, (7aS,8S,9S,10R,11aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

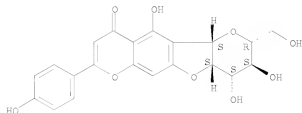


L7 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2009 ACS on SIN
 AN 2006:441728 CAPLUS
 DN 145:347946
 TI Inhibition of intestinal carcinogenesis by a new flavone derivative,
 Chafuroside, in oolong tea
 AU Niho, Naoko; Mutoh, Michihiro; Sakano, Katsuhisa; Takahashi, Mami; Hirano,
 Sachiko; Nukaya, Haruo; Sugimura, Takashi; Wakabayashi, Keiji
 CS Cancer Prevention Basic Research Project, National Cancer Center Research
 Institute, 5-1-1 Tsukiji, Chuo-ku, Tokyo, 104-0045, Japan
 SO Cancer Science (2006), 97(4), 248-251
 CODEN: CSACCM; ISSN: 1347-9032
 PE Blackwell Publishing Asia Pty Ltd.
 DT Journal
 LA English
 AB A new flavone derivative, Chafuroside, has been isolated as a strong
 anti-inflammatory compound from oolong tea leaves, and its structure determined
 to be (2R,3R,4S,4aS,11bS)-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-
 hydroxyphenyl)-5,4,4a,11b-tetrahydro-2H,10H-pyran-2',3':4,5]furo[3,2-
 glyochromen-10-one. To assess its potential to inhibit intestinal
 carcinogenesis, 2.5, 5, and 10 ppm Chafuroside was given in the diet to
 Apo-deficient Min mice for 14 wk from 6 wk of age. Total nos. of polyps
 were reduced to 83, 73, and 56% of the control value, resp. Moreover,
 dietary administration at 10 and 20 ppm reduced azoxymethane (AOM)-induced
 colon aberrant crypt foci (ACF) development in rats to 69% of the
 AOM-treated control value with the higher dose. Chafuroside-associated
 toxicity was not observed at 2.5-10 ppm in Min mice and 10-20 ppm in
 AOM-treated rats. These results suggest that Chafuroside might be a good
 chemopreventive agent for colon cancer.
 IT 720684-57-1, Chafuroside
 RI: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (inhibition of intestinal carcinogenesis by Chafuroside in oolong tea)

10/519,979

RN 720684-57-1 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-
 hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

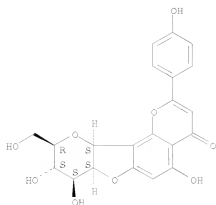
L7 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN
 AN 2006:36756 CAPLUS
 DN 144:108139
 TI Preparation of flavones, their medial compositions, and their use as
 antiallergy and anti-inflammatory agents
 IN Nakatsuka, Takashi; Nimura, Junko
 PA Daiichi Sankyo Pharma Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 53 pp.
 CODEN: JXXXXF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006008626	A	20060112	JP 2004-190367	20040628
PRAI JP 2004-190367		20040628		
OS MARPAT 144:108139				
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Flavones I [R1a-R1e = H, OH, C1-6 linear or branched alkyl(oxy), halo] and
 their their pharmacol. acceptable salts are prepared from
 p-azidobenzoyloxyfluoropyrans II (R3a-xirc = protecting group) and
 2-hydroxyacetophenones III (R3d, R3e = protecting group) in the presence
 of Lewis acids via IV (R3a-R3e = protecting group; R3f = p-nitrobenzyl,
 p-azidobenzyl). Thus, cyclization of
 8-[(2S,3S,4R,5R,6R)-4,5-bis (benzyloxy)-6-benzyloxymethyl-3-
 hydroxytetrahydro-2H-pyran-2-yl]-5,7-dihydroxy-2-phenyl-4H-chromen-4-one
 gave (7aR,8S,9R,10R,11aS)-8,9-bis (benzyloxy)-10-(benzyloxy)methyl-5-
 hydroxy-2-phenyl-7a,9,10,11a-tetrahydro-4H,8H-pyrano[2',3':4,5]furo[2,3-
 h]chromen-4-one, which was deprotected to afford the corresponding flavone
 derivative. The product inhibited the ear swelling of in mice with
 TNGB-induced contact dermatitis in a dose-dependent manner.
 IT 866737-00-02 873077-63-5P
 RI: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN
 (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
 PREP (Preparation); USES (Uses)
 (preparation of flavones as antiallergy and anti-inflammatory agents)
 RN 866737-00-0 CAPLUS
 CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-
 hydroxyphenyl)-, (7aS,8S,9S,10R,11aS)- (CA INDEX NAME)

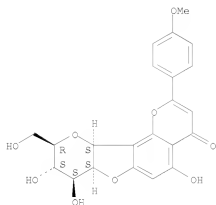
Absolute stereochemistry. Rotation (-).



RN 873077-63-5 CAPLUS

CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-methoxyphenyl)-, (7aS,8S,9S,10R,11aS)- (CA INDEX NAME)

Absolute stereochemistry.



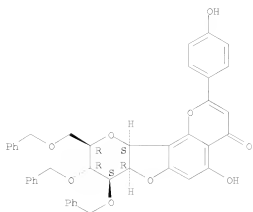
IT 873077-34-OP 873077-51-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of flavones as antiallergy and anti-inflammatory agents)

RN 873077-34-0 CAPLUS

CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
 7a,9,10,11a-tetrahydro-5-hydroxy-2-(4-hydroxyphenyl)-8,9-bis(phenylmethoxy)-10-[(phenylmethoxy)methyl]-, (7aR,8S,9R,10R,11aS)- (CA INDEX NAME)

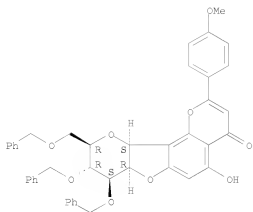
Absolute stereochemistry.



RN 873077-51-1 CAPLUS

CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
 7a,9,10,11a-tetrahydro-5-hydroxy-2-(4-methoxyphenyl)-8,9-
 bis(phenylmethoxy)-10-[(phenylmethoxy)methyl]-, (7aR,8S,9R,10R,11aS)- (CA
 INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN

AN 2005:1196260 CAPLUS

DN 143:440151

TI Preparation of flavone C glycoside

IN Teuji, Kunio; Tanaka, Kei; Nukutani, Haruo; Furuta, Takumi

PA Japan Science and Technology Agency, Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKKXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005314260	A	20051110	JP 2004-132592	20040428
PRAI	JP 2004-132592		20040428		
OS	MARPAT 143:440151				
GI					

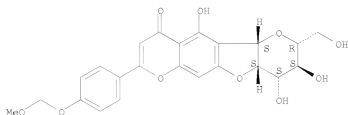
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compound I, which was isolated as antiallergy agent from oolong tea

extract, is prepared by condensation of resorcinols II [R1, R2 = H, protecting group; R3 = (protected) OH, ether group, ester group; R4 = H, CO; when R3 = ether group and R4 = CO; then R3R4 may form (un)substituted ring] with sugars III [R5 = H, protecting group; R6 = halo, OC(NH)X3; X = halo] in the presence of Lewis acid catalysts in aprotic solvents and by treatment of C glycosides IV (R7, R8 = similar group as in R1, R2; R9, R10 = similar group as in R3, R4) with azodicarboxamide or azodicarboxylate esters and trialkylphosphine, triarylphosphine, or phosphoranes in aprotic solvents. Thus, 4-benzyloxy-2,6-dihydroxyacetophenone was treated with 0-(2,3,4,6-tetra-O-benzyl- α -D-glucopyranosyloxy)trichloroacetimidate in the presence of TMSOTf in CH2Cl2, esterified with 4-methoxymethoxybenzoic acid, cyclized, debenzylated, treated with TMAP and Bu3P in THF, and deprotected to give I.

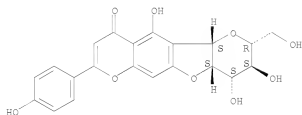
IT 791601-83-7P
 RI: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of flavone C glycoside from resorcinols and sugars)
 RN 791601-83-7 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-[(4-methoxymethoxy)phenyl]-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 720684-57-1P
 RI: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of flavone C glycoside from resorcinols and sugars)
 RN 720684-57-1 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

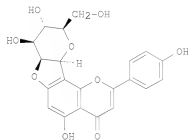
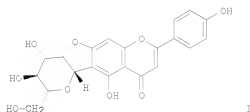


L7 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2009 ACS on SIN
 AN 2005:1103788 CAPLUS
 DN 143:386847
 TI Process for producing flavone c glycoside derivatives
 IN Tsuji, Kuniro; Nukaya, Haruo
 PA Suntory Limited, Japan
 SO ECT Int. Appl., 24 pp.
 COEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 2005095416 A1 20051013 WO 2005-JP5695 20050328
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LG, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, NG, SN, TD, TG
 JP 2005289888 A 20051020 JP 2004-107760 20040331
 CA 2561401 A1 20051013 CA 2005-2561401 20050328
 EP 1731522 A1 20061213 EP 2005-721621 20050328
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
 CN 1938318 A 20070328 CN 2005-80010604 20050328
 BR 2005009028 A 20070807 BR 2005-9028 20050328
 SG 151297 A1 20090430 SG 2009-1982 20050328
 KR 2007009597 A 20070118 KR 2006-719986 20060927
 US 2008024285 A1 20081002 US 2008-593743 20080612
 PRAI JP 2004-107760 A 20040331
 WI WO 2005-JP5695 W 20050328

GI

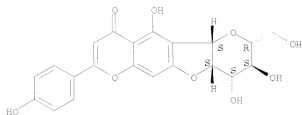


AB This invention provided a process for efficiently producing a flavone C glycoside derivative represented by the formula I which is an antiallergic substance or its salt, or a flavone C glycoside derivative represented by the formula II or its salt. I and II can be easily and efficiently synthesized by using isovitexin and vitexin contained in herbs and so on as the starting materials reacted in the presence of dehydrating agent, such as 1,1'-azobis[N,N-dimethylformamide] and tri-n-butylphosphine.

IT 720684-57-1P 866737-00-OP
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of flavone C glycoside derivs. by cyclization of (iso)vitexin)

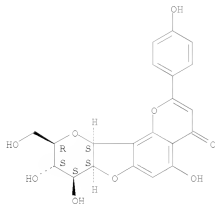
RN 720684-57-1 CAPLUS
 CN 2H,10H-pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3R,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 966737-00-0 CAPLUS
 CN 4H,6H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-
 hydroxyphenyl)-, (7aS,8S,9S,10R,11aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
 AN 2004:902389 CAPLUS
 DN 141:380099
 TI Flavone derivatives and process for producing them
 IN Nakatsuka, Takashi
 PA Daiichi Suntory Pharma Co., Ltd., Japan; Daiichi Suntory Biomedical
 Research Co., Ltd.
 SO PCT Int. Appl., 66 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004092180	A1	20041028	WO 2004-JP5451	20040416
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BW, BY, BZ, CA, CH,				
CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, EG, ES, FI, GB, GD,				
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SY,				
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ,				
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,				
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,				
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,				
TD, TG				
JP 2006176407	A	20060706	JP 2003-113976	20030418
PRAI JP 2003-113976	A	20030418		
OS MARPAT 141:380099				
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

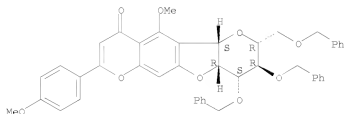
AB A process for the production of flavone derivs. I [R1a, R1b, R1c, R1m and R1n = H, OH, etc.], intermediates for the production thereof; and processes for producing the intermediates were disclosed. Further, the invention provides compds. I [R1a, R1b, R1c, R1m and R1n = H, OH, etc.], (with the proviso that the compound wherein R1c is OH, R1a, R1b, R1m, and R1n are hydrogen, and the sugar moiety is D-mannose is excepted), pharmacol. acceptable salts thereof, and pharmaceutical compns. containing both. For example, treatment of a mixture of compound II, III (35 mg), e.g., prepared from Me 3,4,5-tri-O-benzyl-2-O-p-nitrobenzyl-D-glucopyranoside in 10 steps, with trimethylsilyl triflate at room temperature for 10 min afforded compound IV [R1a = R1b = R1c = R1m = R1n = H] (8 mg), converted to compound I [R1a = R1b = R1c = R1m = R1n = H] using BCl₃. In contact dermatitis control test, compound I [R1a = R1b = R1c = R1m = R1n = H] exhibited p<0.05 (Dunnett's test) at ≥2 μg/kg dose. Disclosed compds. I are claimed useful for the treatment of inflammation, allergy. Formulation is given.

IT 780789-07-3P
R1: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(flavone scaffold preparation using iodobenzene diacetate)

RN 780789-07-3 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-11-methoxy-8-(4-methoxyphenyl)-3,4-bis(phenylmethoxy)-2-[(phenylmethoxy)methyl]-, (2R,3R,4S,4aR,11bS)- (CA INDEX NAME)

Absolute stereochemistry.

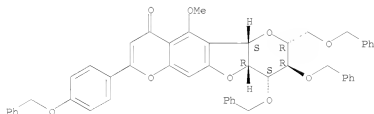


IT 720684-64-0P
R1: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(flavone scaffold preparation via heterocyclization using trimethylsilyl triflate)

RN 720684-64-0 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-11-methoxy-3,4-bis(phenylmethoxy)-2-[(phenylmethoxy)methyl]-8-[4-(phenylmethoxy)phenyl]-, (2R,3R,4S,4aR,11bS)- (CA INDEX NAME)

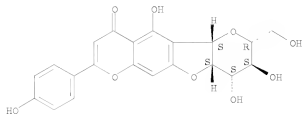
Absolute stereochemistry.



IT 720684-57-1P 780789-12-0P
R1: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of flavone derivs. for treatment of inflammation, allergy)

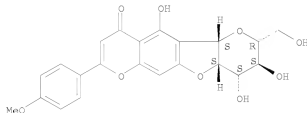
RN 720684-57-1 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-
 hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 780789-12-0 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-
 methoxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry.



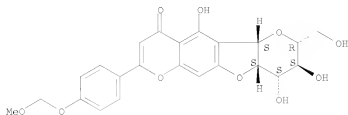
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN
 AN 2004:769344 CAPLUS
 DN 141:411155
 TI Concise total synthesis of flavone C-glycoside having potent
 anti-inflammatory activity
 AU Furuta, Takumi; Kimura, Tomoyuki; Kondo, Sachiko; Mihara, Hisashi;
 Wakimoto, Toshiyuki; Nukaya, Haruo; Tsuji, Kuniro; Tanaka, Kiyoshi
 CS School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka,
 422-8526, Japan
 SO Tetrahedron (2004), 60(42), 9375-9379
 CODEN: TETRAE; ISSN: 0040-4020
 PB Elsevier B.V.
 DT Journal
 LA English
 OS CASREACT 141:411155
 AB The total synthesis of anti-inflammatory active flavone C-glycoside
 isolated from oolong tea extract is achieved. Introducing a C-glucosyl
 moiety to an aryl system and constructing a fused tetracyclic ring
 characteristic to this natural product were conducted based on the O-to-C
 rearrangement of sugar moiety and the successive intramol. Mitsunobu
 reaction, resp. This concise and efficient synthetic pathway is
 applicable to the large-scale synthesis of target flavone and for
 constructing a large library of related compds.
 IT 791601-83-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (Synthesis of the anti-inflammatory active flavone C-glycoside isolated
 from oolong tea extract via rearrangement and intramol. Mitsunobu
 reaction)
 RN 791601-83-7 CAPLUS
 CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-[4-

10/519,979

(methoxymethoxy)phenyl]-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry.



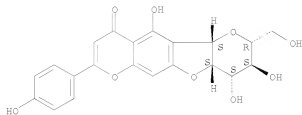
IT 720684-57-1P

RI: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of the anti-inflammatory active flavone C-glycoside isolated from oolong tea extract via rearrangement and intramol. Mitsunobu reaction)

RN 720684-57-1 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2004:403848 CAPLUS

DN 141:106296

TI First total synthesis of structurally unique flavonoids and their strong anti-inflammatory effect

AU Nakatsuka, Takashi; Tomimori, Yoshiaki; Fukuda, Yoshiaki; Nukaya, Haruo

CS Daiichi Suntory Biomedical Research Co., Ltd., Mishima-gun, Osaka, 618-8513, Japan

SO Bioorganic & Medicinal Chemistry Letters (2004), 14(12), 3201-3203

CODEN: BMCL8; ISSN: 0960-894X

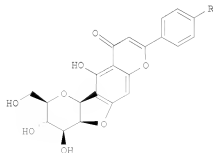
PB Elsevier Science B.V.

DT Journal

LA English

CS CASREACT 141:106296

GI



I

McIntosh

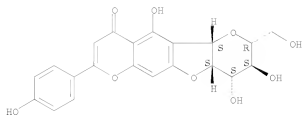
AB The first total synthesis of structurally unique flavonoids I (R = OH, H) is described. These comps. showed very strong anti-inflammatory effect against delayed hypersensitivity in a mouse model.

IT 720684-57-1P
 RI: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of fused tricyclic flavonoids from a D-glucal and their strong anti-inflammatory effect)

RN 720684-57-1 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

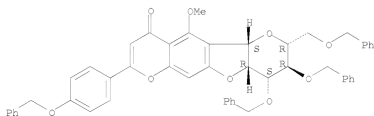


IT 720684-64-0P
 RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of fused tricyclic flavonoids from a D-glucal and their strong anti-inflammatory effect)

RN 720684-64-0 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-11-methoxy-3,4-bis(phenylmethoxy)-2-[(phenylmethoxy)methyl]-8-[4-(phenylmethoxy)phenyl]-, (2R,3R,4S,4aR,11bS)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT